

A New Species of the Genus *Argyroides* from Japan (Araneae, Theridiidae)

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熊田憲一¹⁾: 日本産 *Argyroides* 属の 1 新種

Abstract: A new species of the spider family Theridiidae is described from Japan under the name of *Argyroides nipponicus*. It is closely related to *Argyroides fur* and *A. trigonum*, but differs from these species in the shape of cephalothorax and the structure of sexual organs. The spiders of the species invade the webs of *Agelena limbata* and *A. opulenta* and rarely build their own web.

Introduction

The spiders of the genus *Argyroides* are known as kleptoparasites and host killers which invade the webs of the araneids and agelenids such as *Nephila clavata*, *Argiope bruennichii* and *Agelena limbata*. Eight species of the genus have hitherto been recorded from Japan (YAGINUMA, 1977, 1986): *Argyroides bonadea* (KARSCH, 1881), *A. cylindratus* THORELL, 1889, *A. cylindrogaster* (SIMON, 1888), *A. fissifrons* O. PICKARD-CAMBRIDGE, 1869, *A. fur* BÖSENBERG et STRAND, 1906, *A. miniaceus* (DOLESCHALL, 1867), *A. saganus* (DÖNITZ et STRAND, 1906) and *A. silvicola* S. SAITO, 1934.

Recently, I obtained many materials of a species which is different from the above ones (KUMADA, 1977). Having long cephalic and clypeal processes, this unknown species resembles *A. fur* as well as *A. trigonum* (HENTZ, 1850), occurring in North America, but differs from these species in the structure of both the male and female sexual organs. After a careful examination of the materials, I recognized that the species should be new to the science. It will be described in the present paper under the name of *Argyroides nipponicus*.

Before going further, I wish to express my sincere thanks to Prof. T. YAGINUMA, Osaka, for his kind advice, and to Dr. H. ONO, National Science Museum, Tokyo, for critical reading of the manuscript of this paper. Many thanks are also due to Mss. K. KATO (KURIHARA), K. TAKADA and S. INABA and Messrs. E. SHINKAI, H. YOSHIDA, S. KATAOKA, S. MATSUMOTO, T. IRIE, A. TANIKAWA and K. SUZUKI, for their offering important specimens.

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Argyroides nipponicus n. sp.

(Japanese name: Tsunonaga-isôrôgumo)

Nisefutao-isôrôgumo (Japanese name): KUMADA, 1977, p.62.

Argyroides fur (partim): YAGINUMA, 1986, pp.51-52, fig. 28-3a,e.p.

Argyroides sp.: CHIKUNI, 1989, pp.34, 178.

Type series. Holotype: ♂, allotype: ♀, Mitsui, Tsukui-machi, Tsukui-gun, Kanagawa Pref., 7-VII-1981, K. KUMADA leg. Paratypes: 5 ♀ 2 ♂, same data as for holotype. All the type specimens are deposited in the collection of the Department of Zorology, National Science Museum (Nat. Hist.), Tokyo.

Other specimens examined (the collector name was omitted in the case of K. KUMADA). 1 ♂, 2 ny[nymph(s)], Takizawa, Takizawa-mura, Iwate-gun, Iwate Pref., 27-VI-1978; 1 ♂, 1 ♀, Hosokura, Uguisuzawa-machi, Kurihara-gun, Miyagi Pref., 2-V-1976, S. KATAOKA, 2ny, same locality, 25-VI-1981, S. KATAOKA; 1 ♀, Mistumata, Horikane-mura, Minamiazumi-gun, Nagano Pref., 28-VII-1985, S. INABA, 1 ♀, Takenomoto, Dôshi-mura, Tsuru-gun, Yamanashi Pref., 14-VI-1977; 2ny, Ôgiyama, Ôtsuki-shi, Yamanashi Pref., 12-X-1986; 1 ny, Kabayama, Yasato-machi, Niihari-gun, Ibaragi Pref., 5-VI-1977, A. TANIKAWA; 1 ♀, Komatôge, Hidaka-machi, Iruma-gun, Saitama Pref., 2-VIII-1973; 1 ♀, Urayama, Chichibu-shi, Saitama Pref., 30-VII-1976, K. SUZUKI; 2 ♀, Tenranzan, Hannô-shi, Saitama Pref., 26-VII-1981; 1 ny, same locality, 5-VII-1986; 1 ♀, Emi, Kamogawa-shi, Chiba Pref., 6-VII-1969, S. MATSUMOTO; 1 ♂, same locality, 15-VII-1969, S. MATSUMOTO; 1 ♀, Abiko, Abiko-shi, Chiba Pref., 16-IX-1969, S. MATSUMOTO; 1 ♀, Kominato-maesawa, Amatsukominato-machi, Awa-gun, Chiba Pref., 12-VI-1971, S. MATSUMOTO; 1 ♂, 1 ♀, Kowada-kôtokuji, Itsukaichi-machi, Nishitama-gun, Tokyo, 24-VII-1983; 1 ♂, 1 ♀, same locality, 9-VIII-1983; 1 ♂, 2 ♀, same locality, 17-VII-1984; 2 ♀, same locality, 15-VII-1985; 2 ♂, 6 ♀, Ônida, Ôme-shi, Tokyo, 5-VII-1980; 1 ♂, 4 ♀, same locality, 16-VII-1985; 3 ♀, Sugao, Ôme-shi, Tokyo, 16-VII-1985; 1 ny, Kitakomiya, Aikawa-shi, Tokyo, 19-V-1987; 1 ♀, Kasumikyûryô, Hachiôji-chi, Tokyo, 4-VII-1972, S. MATSUMOTO; 2 ♀, 4 ny, Takiyamakyûryô, Hachiôji-shi, Tokyo, 7-IX-1988; 2 ♀, Hachiôji-jôshi, Hachiôji-shi, Tokyo, 31-VII-1977; 1ny, same locality, 21-V-1978; 1 ♂, 4 ♀, same locality, Tokyo, 16-VII-1978; 4 ♀, Takaozan, Hachiôji-shi, Tokyo, 27-VII-1980; 1 ♀, 7 ny, Aihara, Machida-shi, Tokyo, 6-IX-1987; 2ny, Nozuta, Machida-shi, Tokyo, 9-X-1987; 4 ♀, same locality, 24-VII-1988; 1 ♂, 1 ♀, Mitsui, Tsukui-machi, Tsukui-gun, Kanagawa Pref., 24-VII-1972; 3 ♀, same locality, 17-VII-1973; 1 ♀, Tsukui, Tsukui-machi, Tsukui-gun, Kanagawa Pref., 21-VII-1975; 1 ♂, 1 ♀, Minenoyakushi, Tsukui-machi, Tsukui-gun, Kanagawa Pref., 7-VII-1981; 1 ♀, Hanbara, Aikawa-machi, Aikô-gun, Kanagawa Pref., 26-VIII-1976; 2 ♂, 6 ♀, Miyagase, Kiyokawa-mura, Aikô-gun, Kanagawa Pref., 17-VII-1980; 3 ♀, Fudakake, Kiyokawa-mura, Aikô-gun, Kanagawa Pref., 25-VII-1981; 1 ♀, Nakagawa, Yamakita-machi, Ashigarakami-gun, Kanagawa Pref., 16-VII-1975; 1 ♀, same locality, 21-VII-1976; 1 ♀, Yûsin, Yamakita-machi, Ashigarakami-gun, Kanagawa Pref., 27-V-1976; 1ny, Ôkura, Hadano-shi, Kanagawa Pref.,

27-VII-1972; 3 ♀, same locality, 28-VII-1976; 1 ♀, Iiyama, Atsugi-shi, Kanagawa Pref., 12-VII-1979; 1 ♀, same locality, 17-VII-1980; 1 ♀, Nanasawa, Isehara-shi, Kanagawa Pref., 18-VIII-1979; 1 ♀, same locality, 17-VII-1980; 3 ♀, Noba, Kōnan-ku, Yokohama-shi, Kanagawa Pref., 19-VII-1980, A. TANIKAWA; 1 ♀, Iny, Tōnosawa, Hakone-machi, Ashigarashimo-gun, Kanagawa Pref., 30-VII-1983; 2 ♀, Ichiyama, Amagiyugashima-machi, Tagawa-gun, Sizuoka Pref., 31-VII-1982; 2 ♀, Inazusa, Shimoda-shi, Sizuoka Pref., 4-VIII-1976, K. KURIHARA; 1 ♀, Murōji, Murō-machi, Uda-gun, Nara Pref., 8-VIII-1977; 1 ♂, 2 ♀, Seikaiji, Himeji-shi, Hyōgo Pref., 16-VI-1982, K. TAKADA; 1 ♂, 2 ♀, Himeji-shi, Hyōgo Pref., 17-VI-1982, K. TAKADA; 1 ♂, Goshonourashima Is., Goshonoura-machi, Amakusa-gun, Kumamoto Pref., 12-VIII-1978, T. IRIE; 1 ♂, 13 ♀, Akazaki, Higashiichiki-machi, Hioki-gun, Kagoshima Pref., 22-VIII-1989.

Description. Measurement (in mm). Body length ♀ 2.4–2.7, ♂ 2.5–2.7; cephalothorax length including cephalic process ♀ 1.0–1.1, ♂ 1.4–1.5, width ♀ 0.7–0.8, ♂ 0.7–0.8; abdomen length ♀ 1.4–1.6, ♂ 1.2–1.3, width ♀ 1.2–1.4, ♂ 0.6–0.8, height ♀ 1.8–2.3, ♂ 0.9–1.0; lengths of legs [♀ (allotype)/ ♂ (holotype)]:

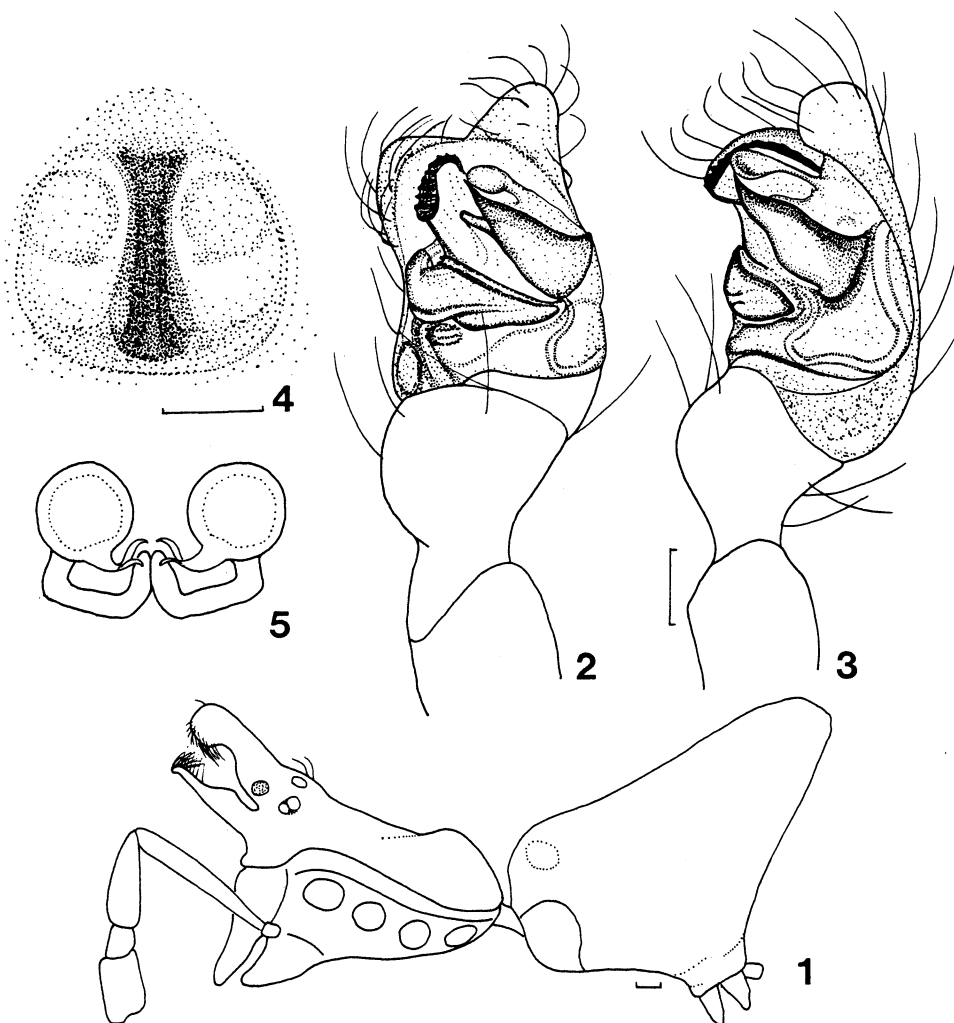
	Femur	Patella + Tibia	Metatarsus	Tarsus	Total
I	2.1/2.8	2.0/3.0	1.2/1.8	0.8/0.9	6.1/8.5
II	1.4/1.6	1.3/1.7	0.8/1.1	0.6/0.6	4.1/5.0
III	0.9/1.0	0.8/0.9	0.5/0.6	0.5/0.5	2.7/3.0
IV	1.4/1.6	1.2/1.3	0.8/0.9	0.6/0.6	4.0/4.4

Male. Cephalothorax slender, nearly pentagonal, smooth, lustrous dark brown, with a black vertical stripe in the anterior part, both the sides of the stripe yellowish brown. Anterior median eye situated at the lateral side of the basal part of cephalic process; anterior lateral eye adjacent to posterior lateral eye; posterior median eye situated at the dorsal side of the basal part of cephalic process; anterior lateral eye separated from anterior median eye by a distance of a half of the diameter.

Cephalic process very long, slanting, viewed from lateral, basally wide, narrower at the middle, the distal part expanded, the underside densely haired. Clypeal process long, distally narrower, the apical part furnished with some hairs extending posteriad (Fig. 1). Chelicerae, maxillae and labium brown, darker marginated respectively; chelicerae retrolaterally dark brown. Sternum triangular, yellowish brown, reticulated with blackish brown, produced between coxae IV. Legs long and slender, yellowish brown, tarsi lighter. Male palp as in Figs. 2–3.

Abdomen blackish brown, with a pair of silver spots and a cardiac pattern yellowish grey; posteriorly bifid; triangular in lateral view.

Female. Cephalothorax slightly more slender than that of male, nearly pentagonal; color as in male. Eye area expanded forward; arrangement of eyes same as in male. Chelicerae, maxillae and labium as in male except for their color yellowish brown; sternum marginated with dark brown.



Figs. 1–5 *Argyrodes nipponicus* sp. nov. — 1, Male, lateral view; 2, male palp, retrolateral view; 3, same, ventral view; 4, epigynum, ventral view; 5, female genitalia, dorsal view. (Scales: 0.1mm.)

Abdomen triangular in lateral view, greyish yellow, silver squamated, with indistinct black markings on its lateral and posterior sides; the posterior part extended upward and with bifid tip.

Distribution. Japan (Honshû, Kyûshû).

Biology. Found in the webs of *Agelena linbata* and *A. opulenta*; rarely, in the own webs.

Remarks. This new species is closely related to *Argyrodes fur* BÖSENBERG et STRAND, 1906, distributed in Honshû, Shikoku, Kyûshû, Japan, and *A. trigonum* (HENTZ, 1850) from North America, but has small and slender body, peculiar marking of cephalothorax, and long cephalic and clypeal processes of male, as well as the structure of sexual organs different from

those of these species.

摘 要

ヒメグモ科イソウログモ属の一新種を *Argyrodes nipponicus* n. sp. ツノナガイソウログモ(新称)として記載した。この種は *A. fur* BÖSENBERG et STRAND, 1906 フタオイソウログモやアメリカ産の *A. trigonum* (HENTZ, 1850)に近縁であるが、頭胸部の頭上突起および額上突起の形態と生殖器の構造により容易に区別できる。本種は、クサグモやコクサグモの網に侵入するほか、自らも網を張る。

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